ADIOS®2

Automated Data Inquiry for Oil Spills (ADIOS2) is an oil spill response tool to assist oil spill responders and contingency planners in making decisions on potential response strategies. ADIOS2 integrates a library of approximately one thousand oils with a short-term oil weathering and cleanup model to help you to develop cleanup strategies based on estimates of the amount of time that spilled oil will remain in the marine environment.

Oil Library

The ADIOS2 oil library was compiled from a number of different sources, including Environment Canada, the U.S. Department of Energy, the International Oil Companies' European Organization for Environmental and Health Protections (CONCAWE), and industry. Information about the location, density, viscosity, flash point, pour point, hydrocarbon group analysis, and distillation data is included in the database. In addition to using the standard library, you may build or modify a custom library of specific oils.

Using ADIOS2

ADIOS2 asks for information on the spill itself, environmental conditions, and the planned cleanup strategy. You have several choices for entering and calculating the oil leak rate from the source of the spill. Extensive on-line help is available for all of the input requirements, explaining the use of the data, allowable values, where data may be obtained, and reasonable default values. The help is progressive, providing information on specific input requirements, as well as a basic background on standard spill cleanup technology and terminology. Technical documentation for the algorithms are available for spill researchers as part of the help. The model displays the predicted property changes and estimated oil budget for a given time as a graph, table, or text summary. Output can be formatted to fit the Incident Command System Standard Form 209.

Model Parameters

The program provides you with a best-guess answer and also calculates possible ranges in the values of estimated spill properties. ADIOS2 contains several new extensions from earlier versions. Many of the weathering algorithms have been improved and new processes such as sedimentation and airborne benzene concentration estimation have been added. The oil properties and processes displayed by the program are listed below.

Oil Properties

- density
- viscosity
- water fraction
- benzene hazard

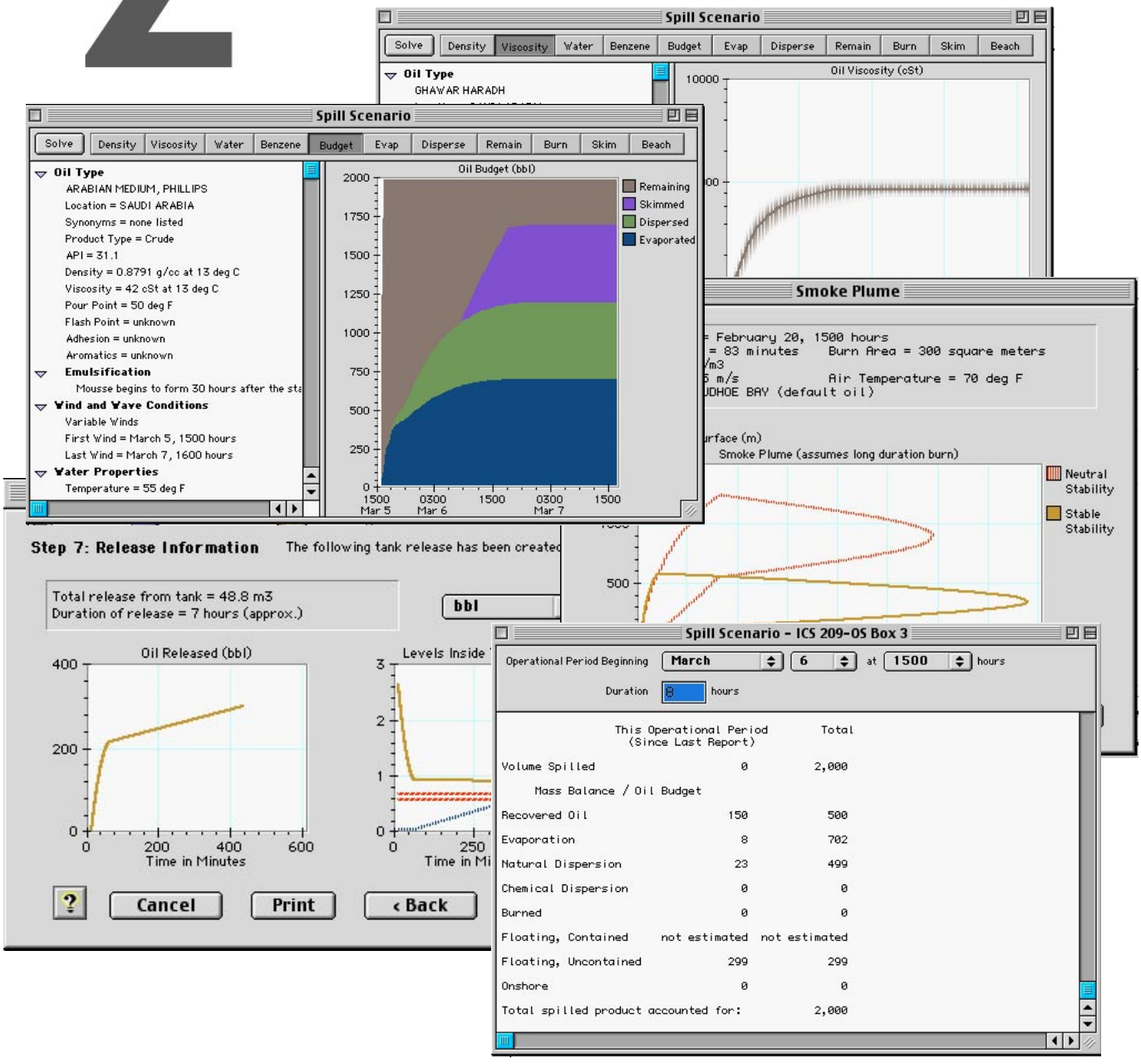
Processes

- dispersion
- evaporation
- emulsification
- spreading
- beaching
- in-situ burning
- leak rate
- skimming
- smoke plume

ADIOS2 will make predictions for a maximum of five days. For periods longer than this, other processes, such as biodegradation and photo-oxidation, may be important. The program does not model these processes.

For additional information or to obtain ADIOS2, visit http://response.restoration.noaa.gov/software/adios/adios.html, e-mail orr.adios@noaa.gov, or call 206/526-6317.

ADIOS 2



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